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SHUFFLE PUTTER

BACKGROUND OF THE INVENTION

Statement of the Technical Field

[0001] The present invention relates to a golf club and use therefor, and more particularly to a shuffleboard style golf putter.

Description of the Related Art

[0002] The game of golf pre-dates most modern sporting pursuits and a majority of modern nation-states. Established some five hundred years ago in the highlands of England, the game of golf primarily has remained constant in form. Generally, the golfer strikes a small ball repeatedly with a club in an attempt to force the ball into a hole. A golfer succeeds by placing the ball into the hole with a minimum number of swings or strokes of the golf club. Conventional golf courses include eighteen holes providing a player with eighteen corresponding opportunities to place the ball in a hole using a minimum number of swings or strokes. Once the golf player has completed all eighteen holes of play, referred to typically as a "round", the minimum of a sum total of all swings and strokes for each player in a group will determine the winner from among the group.

[0003] While the game of golf has remained more or less constant in the past half-millennium, the primary tool of the trade--the golf club--has remained anything but constant. Nevertheless, most golf clubs share similar principal characteristics. Referring now to Figure 1, the conventional golf club 100 includes a shaft 120 coupled to a club head 110 by way of a housel 170. The shaft can include a grip 130 upon which the golfer can place the golfer's hands so as to firmly control the swing/stroke motion of the club. The club head 110 can include a primary surface referred to as a face 140 with which the club 100 can strike a golf ball. Additionally, the club 100 can include a club toe 150 at the end of the club 100 opposite the housel 170, and a club heel 160, nearest the housel 170. Ordinarily, but not always, only the face 140 serves as the purpose of striking a ball, though in some golf clubs, either or both of the toe 150 and heel 160 can be used as a striking surface as well.

[0004] Golf clubs vary by function and by range. In particular, golf clubs can be grouped into long range drivers, medium range irons, short range chippers and wedges, and extremely short range putters. Generally, the golfer uses a driver to launch the golf ball from tee to fairway, and in some cases, the green. Irons, by comparison, are used to drive the golf ball from an intermediate position to the green, though in some circumstances, the iron can be used in substitute for the driver where the range of the driver is neither necessary nor feasible. Chippers and wedge generally serve the requirement of lofting the golf ball strategically towards the green, or where the terrain does not permit the use of an iron, such as in the case of a sand trap.

[0005] The putter serves the "short game" aspect of golf, where the golf ball has been placed on the green, but remains to be placed in the hole. Unlike the other clubs

in the golfer's arsenal, a putter is not a swinging instrument, but a stroking instrument. In this regard, a gentle, but precise stroke of the putter can push the golf ball towards the hole, or even into the hole. Traditionally, and according to the modern rules of golf, the golfer holds the putter normally to the hole with the golfer's body having a tangential position thereto. A stroke of the putter from one side of the golfer's body to the other side of the golfer's body in the direction of the hole can cause the face of the putter to strike the ball, causing the ball to roll towards the hole.

[0006] For many golfers, the mastery of the putter can differentiate a winning round of golf from a losing round of golf. Consequently, great attention to the construction and use of the putter has produced a multiplicity of different types of putters. Figures 2A through 2F illustrate three conventional putter designs which have enjoyed wide acceptance in the golfing community. As an example, Figures 2A and 2B are front perspective and side perspective views of a Gibson putter known in the art. Crafted by William Gibson of Kinghorn, Scotland, the Gibson putter is a center shafted putter, even though the housel 210 is coupled to the club face 220 by way of the heel of the club face 220.

[0007] As it will be apparent to the skilled artisan, it will be preferable to position the shaft of the putter over the center point of the club face so as to facilitate the aiming point of the putter when aligning the putter with the golf ball prior to stroking the golf ball towards the hole. Yet, to directly attach the housel to the center point of the club face can limit the placement of the putter shaft. Thus, where it is desirable to set the shaft towards or beyond the rear of the club head, it is preferred to couple the housel 210 of

the putter to the club heel while allowing the shaft to be positioned in line with the center point of the club head 220 as illustrated in Figures 2A and 2B.

[0008] Unlike the putter of Figures 2A and 2B, Figures 2C and 2D are front perspective and side perspective views of a Sprague putter in which the housel 210 is coupled directly to the center point of the club head 240. The Sprague putter, developed in 1904 by William W. Davis, includes not only a striking face at the front of the club head, but also the club heel and club toe also include striking surfaces. In this regard, the housel can be rotated about three-hundred sixty degrees so that the preferred striking face can be selected.

[0009] Historically, putters have not been limited to the simple designs of the Gibson and Sprague putters. Rather, many putters account for different putting methodologies outside of the conventional putting methodology. As an example, Figures 2E and 2F are front perspective and side perspective views of a Little Magician putter configured for croquet-style use. More particularly, the Little Magician putter can include a short shaft (not shown) attached in-line to a housel 250 which has been coupled at a ninety degree angle to the club head 260. The club head 260 of the Little Magician can be weighted at the rear for a smooth stroke. More importantly, using a croquet-style stroke, a golfer can more accurately direct the golf ball towards the hole because the golfer can be positioned normally to the hole in line with the hole rather than tangentially resulting in greater aiming and control of the putter.

[0010] Where the club head of a putter incorporates a specified striking face, the golfer can improperly direct the golf ball off target where the golfer strikes the ball using a non-designated portion of the club. This circumstance can particularly arise where the

club head strikes the ball at a point too close to the top or bottom of the club head, and too close to the club toe or club heel. One solution to the foregoing problem is to not establish a specific striking zone of the club head. In this regard, Figures 3A and 3B are front perspective and side perspective views of an Arlington putter configured with a cylindrical club head 310 coupled to a conventional housel 320. By incorporating a cylindrical club head 310, it is more difficult for the golfer to strike a golf ball with a portion of the club head 310 likely to result in a misdirected putt. Moreover, the cylindrical head permits both left and right-handed putting as either side of the cylindrical head can be used to strike the golf ball.

[0011] Inasmuch as the putting stroke includes the initiation of the stroke at a level above the turf and the completion of the stroke at a level above the turf, the stroking motion can result in unintentional duffing. Consequently, some have proposed putters which resist duffing. For instance, Figures 3C and 3D are front perspective and side perspective views of a Roller Golf Club putter which facilitates the rolling of the club head about the turf without incurring the consequences of duffing. The Roller Golf Club putter can include a housel 330 coupled to a cylindrical club head 340 configured to rotate about the axis defined by the intersection of the housel 330 and the pin 350. In addition to enjoying the advantage of a rolling club head, the Roller Golf Club also enjoys the advantages of other cylindrical heads in terms of a reduction in misdirected putts. The Rollmatic Strokemaker putter illustrated in Figures 3E and 3F further exemplifies elaborate attempts to incorporate a rotatable cylinder 380 within a putter head 370 coupled to a conventional housel 360 in order to reduce the risk of duffing during the putting stroke.

[0012] Aside from the conventional putting stroke in which the golfer positions each shoulder in line with both the golf ball and hole (so that the golfer establishes a tangential position with respect to the direct line to the hole, some have experimented with alternative putting positions and corresponding putters designed to accommodate the alternative putting positions. For instance, each of a croquet stance, a billiards stance and a shuffle board stance have resulted in the design of specially configured putters. As an example, Figures 4A and 4B are front perspective and side perspective views of a Spalding putter which descends from a conventional croquet mallet. Specifically, the Spalding putter includes an oversized club head 420 coupled to a croquet shaft 410 in which the toe and heel of the club head 420 serve as the principal striking surfaces. To adequately align and strike a golf ball with the Spalding putter, the golfer aligns the shoulders squarely facing the hole with the ball in front of the body and between the legs of the golfer. In this normal (and not tangential) position, the golfer can stroke the Spaulding putter in the same manner as a croquet mallet in order to push the ball towards the hole.

[0013] Unlike the Spaulding putter of Figures 4A and 4D, the Garner putter of Figures 4C and 4D demonstrates a putter configured for use both conventionally and in a billiard fashion. Specifically, a club head 450 can be coupled to a shaft 430. The club head 450 can include striking surfaces both on the toe and heel of the club head 450 for use by a golfer in either of a conventional stance, or in a croquet-style stance. The base 440 of the club head 450 also can serve as a striking surface where the golfer aligns the club with the golf ball and hole in the same manner as one would align a pool cue with a cue ball and a pocket on a pool table. Interestingly, one month after the

Garner putter became the subject of a United States patent application, the official rules of the game of golf outlawed the use of a golf club "in the same manner as a billiard ball is struck with a cue".

[0014] It will be apparent to the skilled artisan that some have recognized the accuracy of aligning a golf put not from the side as is the case with most golf putters, but from behind as is the case in the unconventional croquet-style and billiard style putters. Yet, the rules of golf typically prohibit such forms. As an intermediate form, at least one putter contemplates a shuffleboard-style stroke in which the golfer faces the hole with both shoulders square to the hole, but grips the putter to the side of the body off one of the shoulders with the putter remaining substantially aligned with the golf ball and the hole. To facilitate the seemingly awkward shuffleboard style stroke, the One-Putt Putter illustrated in Figures 4E and 4F includes a rotatable cylinder 480 mounted to the sole of the club head 470 coupled to a base 460 having an acute enough angle at the point of attachment such that the putter can be pushed forward towards a golf ball without imparting so much force as to drive the club head 470 towards the turf.

[0015] Based upon a review of both conventional and unconventional putters, it will be clearly understood that no one putter reflects a design which can produce the accuracy from a "behind the ball" alignment in addition to a non-specific striking surface without requiring unusually complex additional componentry and without running afoul of the rules of golf. Specifically, it has been observed that a flat striking surface can lead to the misdirection of the golf ball where the flat striking surface establishes contact with the golf ball away from the "sweet spot" of the club head. While the addition of a rotatable cylinder can provide some relief from the problem of the misdirected golf ball,

the incorporation of a rotatable cylinder can add an unnecessary element of complexity and a potential source of product failure in the putter. Finally, to require that the golfer establish a tangential position with respect to the hole, e.g. aligning both shoulders with the golf ball and the hole, can invite the inaccuracies associated with conventional putting. Yet, to require the golfer to stand squarely behind the golf ball facing the hole can produce an illegal putt.

SUMMARY OF THE INVENTION

[0016] The present invention is a shuffle putter which addresses the deficiencies of known putters. Specifically, the shuffle putter of the present invention overcomes such deficiencies and provides a novel and non-obvious shuffle putter and corresponding method of use in which a non-specific striking surface disposed about the club head provides enhanced accuracy not presently available in connection with an ordinary putter. Additionally, the shuffle putter of the present invention can be configured for use with a shuffleboard-style stroke so as to provide improved aiming and execution of a putt. In this regard, the shuffle putter can lower the golf score of any golfer simply by reducing the number of strokes required on the putting green during a round of golf.

[0017] A shuffle putter can include a shaft coupled to a club head. The shaft can extend substantially perpendicularly to the club head from above a central portion of the club head between a toe and a heel of the club head. The club head itself can include a non-specific striking surface disposed between the toe and the heel. For example, the club head can be a cylinder. Also, a runner can be affixed at each of the heel and the toe. Notably, a housel can be disposed between the shaft and the club head. For instance, the housel can be coupled to the club head at one of the heel, the toe, and substantially halfway between the heel and the toe. Moreover, the housel can form an acute angle with a horizontal plane defined by the club head at a point of coupling between the housel and the club head. Finally, the runners can be affixed to each end of the cylinder in a position offset from the vertex of the runners so as to facilitate the impartation of top spin or back spin to a golf ball.

[0018] A shuffle putting method can include the steps of aligning a central portion of a non-specific striking surface of a club head with both a golf ball and a hole; resting the club head on turf supporting the golf ball; standing aside the club head; and, striking the golf ball with the club head at the central portion of the club head using a shuffleboard-style stroke. The resting step can include the step of resting runners affixed to ends of the club head on the turf supporting the golf ball. By comparison, the striking step can include the steps of lowering a shaft coupled to the club head to an acute angle with respect to the turf supporting the golf ball; pulling the shaft backwards away from the golf ball; moving the shaft forwards toward the golf ball while maintaining the acute angle; and, striking the golf ball with the club head. Moreover, the striking step can include the step of maintaining contact between the runners and the turf while striking the golf ball with the club head.

BRIEF DESCRIPTION OF THE DRAWINGS

- [0019] There are shown in the drawings embodiments which are presently preferred, it being understood, however, that the invention is not limited to the precise arrangements and instrumentalities shown, wherein:
- [0020] Figure 1 is a schematic illustration of a conventional golf club known in the art;
- [0021] Figures 2A and 2B are front perspective and side perspective views of a Gibson putter known in the art;
- [0022] Figures 2C and 2D are front perspective and side perspective views of a Sprague putter known in the art;
- [0023] Figures 2E and 2F are front perspective and side perspective views of a Little Magician putter known in the art;
- [0024] Figures 3A and 3B are front perspective and side perspective views of an Arlington putter known in the art;
- [0025] Figures 3C and 3D are front perspective and side perspective views of a Roller Golf Club putter known in the art;
- [0026] Figures 3E and 3F are front perspective and side perspective views of a Rollmatic Strokemaker putter known in the art;
- [0027] Figures 4A and 4B are front perspective and side perspective views of a Spalding putter known in the art;
- [0028] Figures 4C and 4D are front and side perspective views of a Garner putter known in the art;

- [0029] Figures 4E and 4F are front and side perspective views of a One-Putt Putter known in the art;
- [0030] Figures 5A and 5B are front and side perspective views of a shuffle putter which has been configured in accordance with the inventive arrangements;
- [0031] Figures 5C and 5D are front and side perspective views of the shuffle putter of Figures 5A and 5B which has been configured in an enhanced preferred aspect of the present invention;
- [0032] Figure 6 is a perspective view of the shuffle putter which has been configured in yet another enhanced preferred aspect of the present invention;
- [0033] Figure 7 is an exploded view of the club head of the shuffle putter of Figure 6; and,
- [0034] Figure 8 is a flow chart and accompanying pictorial illustration depicting a process for shuffle putting using the shuffle putter illustrated within Figures 5A through 5C and Figure 6.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0035] The present invention is a shuffle putter. A shuffle putter which has been configured in accordance with the inventive arrangements can include a club head coupled to a housel at an angle conducive for applying a shuffleboard-style stroke. The club head can include a non-specific striking surface such as a surface having significant curvature. In operation, the golfer can stand adjacent to the golf ball facing the hole with the shuffle putter in hand and aligned directly behind the golf ball and resting on the turf. The golfer can draw the shuffle putter backwards away from the hole before reversing course and pushing the shuffle putter forwards towards the golf ball and the hole. The golfer can strike the golf ball between the toe and heel of the club head on the non-specific striking surface, preferable at the center of the non-specific striking surface between the toe and heel of the club head. In this way, the golf ball can be accurately driven towards the hole in a manner not possible with a conventional putter.

[0036] Though many variations of the shuffle putter are contemplated in accordance with the present invention, at its core, the shuffle putter can include a club head having a non-specific striking surface coupled to a housel supporting a shaft (or a shaft which has been directly coupled to the club head). The effective angle of housel and shaft when positioned for use in putting can be that of an acute angle so as to facilitate a shuffle putting motion without resulting in forces tending to push the club head substantially into the turf. As an example, Figures 5A and 5B are front and side perspective views of a shuffle putter which has been configured in accordance with a basic aspect of the inventive arrangements. The shuffle putter of Figures 5A and 5B

can include a housel/shaft combination 510 coupled to a club head 520 having a non-specific striking surface 530. In the basic embodiment, the club head 520 can be a fixed, non-rotatable cylinder in which the non-specific striking surface 530 is comprised of the spherical surface of the cylinder.

[0037] Notably, in the basic embodiment of the present invention, neither the toe 540 of the club head 520, nor the heel 550 of the club head 520 forms a striking surface. Yet, it will be apparent to the skilled artisan that the shuffle putter can be used both in a left-handed and right-handed fashion wherein the non-specific striking surface 530 remains the spherical surface of the cylinder. In this regard, definitively identifying which end of the club head 520 is the toe 540 and which end of the club head 520 is the heel 550 is not possible. In either case, an accurate putt can be produced simply by striking a golf ball anywhere on the non-specific striking surface 530, regardless of the exact angle of the housel/shaft combination 510 with respect to the turf. Ideally, the non-specific striking surface 530 will contact the ball in the horizontal plane substantially between the heel 550 and the toe 540.

[0038] Importantly, it is to be understood by one skilled in the art that the invention is not limited to the use of a cylindrical club head in order to effectuate the non-specific striking surface of the present invention. Rather, an club head shape can suffice so long at the primary striking surface of the club head enjoys a curvature able to produce a non-specific striking surface. Furthermore, it is to be understood that an acute angle between the grip of the shaft and the club ultimately must be established when positioning the shuffle putter in order to facilitate a shuffleboard-style stroke in which the stroke vector predominately includes a force component residing along a

plane substantially parallel with the turf, and where the force components of the stroke vector which substantially intersect the turf are minimized.

[0039] In any case, the acute angle can be formed by logically linking the end of the shaft opposite to the club head to the point where the housel meets the club head. The angle of the logical link with respect to the turf must be small enough so as to support the shuffleboard-style stroke. In this regard, it will be further recognized that the use of a non-specific striking surface in the form of a cylindrical club head obviates the requirement for compromising the establishment of a particular acute angle with the physical dimensions of the golfer given the limitations of an otherwise specific striking surface such as a flat plate. That is to say, regardless of the angle at which the shaft is held with respect to the turf, the non-specific striking surface will remain an effective striking surface given the spherical nature of the non-striking surface.

[0040] Many variations of the shuffle putter are contemplated and the invention is not limited strictly to the basic configuration illustrated in Figures 5A and 5B. For example, an enhanced aspect of the shuffle putter is illustrated in Figures 5C and 5D. The enhanced shuffle putter can include a housel/shaft combination 560 coupled to a club head 570 having a non-specific striking surface. To enhance the surface area of the club head 570 able to function as the non-specific striking surface, runners 580 having a diameter which exceeds that of the club head 570 can be affixed to the heel and toe of the club head 570. The runners 580 can be formed of the same material as that of the club head 570, though a non-stick, low friction surface such as teflon or carbon fiber derivative is preferred. In this way, the club head 570 and more particularly, the non-specific striking surface, can be elevated above the turf so as to

expose more surface area for use as the non-specific striking surface. Moreover, as less surface area of the club will remain in contact with the turf, the forces produced by the frictional contact between the runners 580 and the turf which tend to resist the shuffleboard-style stroke can be reduced substantially. Thus, the opportunity for duffing can be completely eliminated.

[0041] Figure 6 is a perspective view of the shuffle putter which has been configured in yet another enhanced preferred aspect of the present invention. In the preferred aspect of the invention illustrated in Figure 6, the club head can include a cylinder 620 of four inch length coupled to two runners 630 at either end of the cylinder 620. Each of the runners 630 can be substantially spherical and each of the runners 630 can have a diameter of two inches. Notably, the cylinder 620 can be coupled to the runners 630 not necessarily at the vertex of the runners 630 but at an off-center location. In the example illustrated in Figure 6, the cylinder 620 can be mounted at one-half inch off the center 650 of the cylinder 620. Moreover, the cylinder 620 can be mounted to the runners 630 at one-half inch above the putting surface 640 as measured from the axis of the cylinder 620.

[0042] It is a marked advantage of the embodiment illustrated in Figure 6 that the non-specific striking surface of the club head can impart top-spin to the golf ball by virtue of the off-center mounting of the cylinder 620 to the runners 630. Top-spin, as it is widely known, is a highly desirable characteristic of a putt. Additionally, where the club head is rotated one-hundred eighty degrees about the axis of the shaft 610, the non-specific striking surface of the club head can impart back spin to the golf ball, once again by virtue of the off-center mounting of the cylinder 620 to the runners 630. Back-

spin can be desirable when putting from the perimeter of a putting green. Finally, it will be recognized by the skilled artisan that either configuration can be applied regardless of whether the operator is left-handed or right handed.

[0043] Once the cylinder 620 has been offset in respect to the runners 630 as compared to the center-mounting configuration of Figures 5A through 5D, the angle at which the shaft 610 can be coupled to the cylinder 620 can influence the effectiveness of striking the golf ball with the non-specific striking surface in as much as different levels of spin can be imparted depending upon the angle upon which the non-specific striking surface impacts the golf ball. The angle, of course, can be influenced by the height of the operator, the length of the operator's arms, and the angle at which the operator holds the shaft 610 relative to the putting surface. Hence, it can be important that the operator may adjust the runners in a rotatable fashion so as to select an optimum configuration.

[0044] To further illustrate this aspect of the invention, Figure 7 is an exploded view of the club head of the shuffle putter of Figure 6. As it will be apparent from Figure 7, the shaft 710 can be coupled to the cylinder 730 at a specific angle with respect to the ground and with respect to the vertex of the runners 720. The runners 720 can be coupled to the cylinder 730 by way of a bolt which can frictionally secure the runners 720 to the cylinder. Alternatively, the runners 720 can be secured to the cylinder 730 by way of a ratcheting mechanism. In either circumstance, the runners 720 can be rotatably adjusted about the vertex of the cylinder 720 (as opposed to the vertex of the runners 720 so as to modify the angle formed between the shaft 710 and the putting surface and the vertex of the runners 720 respectively. In this way, different spins and

spin intensities can be applied to the golf ball depending upon the physical characteristics of the operator and the angle at which the operator holds the shaft 710 with respect to the putting surface.

[0045] The operation of all embodiments of the shuffle putter of the present invention can be understood with better clarity by reference to Figure 8. More particularly, Figure 8 is a flow chart and accompanying pictorial illustration depicting a process for shuffle putting using the shuffle putter illustrated within Figures 5A through 5C and Figure 6. Beginning in block 810, the golfer can approach the golf ball from behind the golf ball, albeit while in alignment with the hole. In block 820, the golfer can align the putter with the golf ball and the hole. In block 830, the runners of the putter can be rested on the turf, thus causing the non-striking surface of the putter to become elevated above the turf. In block 840, the golfer is to reposition the golfer's body to the side of the putter facing the hole while holding the putter in place behind the golf ball. Importantly, the golfer is not to stand tangentially to the hole as would be the case in a conventional putting arrangement. Rather the golfer is to assume a position tantamount to a shuffleboard-style position. Finally, in block 850 the golfer is to strike the golf ball using a shuffleboard style motion, causing the golf ball to roll towards the hole.

[0046] Significantly, this invention can be embodied in other specific forms without departing from the spirit or essential attributes thereof, and accordingly, reference should be had to the following claims, rather than to the foregoing specification, as indicating the scope of the invention.